Does Satisfaction Increase Patient Loyalty? (Investigation on Jogja International Hospital Surakarta, Indonesia)

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Abstract
This research aims to test and analyze the influence of patient satisfaction on patient loyalty. It also measures the role of consumer satisfaction as a mediating variable of brand trust and service quality on patient loyalty. This research used a quantitative descriptive approach. This research was conducted at JIH Solo Hospital, with 125 respondents. Sampling was done using the purposive sampling technique. This research was analyzed using Partial Least Square (PLS) with SmartPLS3 software. The research results showed that brand trust positively and significantly affected patient satisfaction. Service quality had a positive and significant impact on patient satisfaction. Brand trust had a positive and significant effect on patient loyalty. Service quality had a positive and significant impact on patient loyalty. Patient satisfaction had a positive and significant impact on loyalty. Patient satisfaction was a partial mediator of the influence of brand trust on patient loyalty. Patient satisfaction partially mediated the influence of service quality on patient loyalty.

Kata kunci: Brand trust; kepuasan pasien; loyalitas pasien; kualitas pelayanan


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INTRODUCTION

Patient or customer satisfaction has become a key concept in marketing theory and practice and has been an essential goal for business activities. Customer satisfaction aims to create customer loyalty, improve company reputation, and increase employee efficiency and productivity (Baihaqi & Suharmono, 2010). Companies are expected to market their products and create customer satisfaction. Satisfied customers will increase their loyalty toward certain products. A study proved that customer satisfaction affected the loyalty of residents who visited cafes in Batam City, with a sample of 330 consumers (Hanny & Krisyana, 2022). In their study, Hasibuan et al. (2022) revealed that customer satisfaction significantly affected the loyalty of 96 customers at Holat Afifah Rantau Prapat Restaurant.

In addition to being influenced by patient satisfaction, increasing customer or patient loyalty is also influenced by brand trust. Nasution and Sutisna (2015) proved that brand trust...
is an "asset" of a company/organization. With trust in the hospital, patients will repeatedly come to the same hospital to provide health services for themselves despite distances (Upamannya & Sankpal, 2014). A study discovered that brand trust affected customer loyalty to Precious One product users, with a sample of 344 consumers (Mariana et al., 2022). Similarly, Handayani et al. (2021) found that brand trust affected customer loyalty to Shopee customers in Yogyakarta, with a sample of 245 consumers. Brand trust could also affect patient satisfaction, with public trust in hospitals and increased patient satisfaction. Brand trust positively affected the customer satisfaction of Amidis consumers, with a sample of 87 respondents (Ihsan & Sutedjo, 2022). Wana Putra et al. (2023) discovered a positive and significant influence between brand trust and customer satisfaction at PT Galatta Lestarindo, with a sample of 100 respondents.

Patient satisfaction is also influenced by service quality. Good service quality can increase patient satisfaction increasing patient loyalty. Silaban et al. (2017) defined healthcare quality as the art of doing something right, at the right time, in the right way, for the right people and having the best results. Service quality reflects the comparison between the level of service provided by the company and customer expectations. Service quality significantly affected customer satisfaction at Mangkok Ku Restaurant in Jakarta, with a sample of 145 customers (Gunardi & Erdiansyah, 2019). Altonie et al. (2022) also found that service quality could increase service user satisfaction in Katingan Regency, with 115 respondents. Improving service quality could also increase customer loyalty. Service quality is closely related to customer satisfaction (Fandy Tjiptono, 2014). Service quality will encourage customers to establish a mutually beneficial long-term relationship with the company. Service quality has a significant effect on the loyalty of Islamic Bank customers from the 4 (four) banks used, such as Bank Syariah Mandiri, Bank Muamalat BCA Syariah, and BNI Syariah, with a sample of 100 respondents (Sari & Aprianti, 2020).

This research aims to examine the factors that influence patient loyalty at JIH Solo Hospital and specifically to analyze the effects of brand trust on patient loyalty, the effect of service quality on patient loyalty, the effect of patient satisfaction on patient loyalty, and test patient satisfaction as a moderator of the significance of independent variables (brand trust and service quality) on the dependent variable (patient loyalty). The contribution of this study is to determine the factors that influence the increase in patient loyalty and to know that patient satisfaction is a means to support the achievement of patient loyalty.

RESEARCH METHOD

This research is descriptive quantitative research, using data and research from numbers and analyzed using statistics. The subjects of this study were patients from JIH Surakarta Hospital. The data source used in this study was a primary data source from a questionnaire distributed to respondents. The sample used in this study was 125 people. The sampling technique used was purposive sampling. Purposive sampling is based on considerations to match the researcher's criteria to increase sample accuracy (Sugiyono, 2013). The criteria include patients seeking treatment at JIH SOLO Hospital, not using health insurance or BPJS, aged between 17 and 50, and outpatients. Data collection can be done through observation, documentation, questionnaires, and literature studies, while this study chose a questionnaire. A questionnaire is used for data collection by asking...
respondents to fill in questions or statements with the answers given, then returning them to
the researcher after filling in completely (Cresswell et al., 2013). The data was processed using
the Partial Least Square (PLS) technique with SmartPLS3 software.

Instrument tests in this study employed validity and reliability tests. The validity test is
carried out on each research indicator in each variable. It is valid if the factor loading value
exceeds 0.5, meaning the indicator is suitable for research constructs. At the same time, the
reliability test is carried out on the research variables, such as the AVE, Cronbach’s Alpha,
and Composite Reliability tests. Variables are reliable if the AVE value is greater than 0.5.
The Cronbach’s Alpha value and composite reliability are greater than 0.7, with a rule of
thumb greater than 0.6, confirming the model's accuracy and testing a variable's effect on
other variables with the Path Coefficient and p-values.

The operational definition of the variables in this study, patient loyalty, is a patient
attachment to the hospital based on the services received. The variable indicators used are
happy consumers, not switching hospitals, complete facilities, the main choice of hospitals,
and not trying other hospitals. Brand trust is an emotional bond between a brand and
consumers/patients, either because of their own experience or information received by
consumers/patients. The variable indicators used are Reliability, Honesty, Care, and
Credibility. Service quality is a service provided to consumers/patients as an added value to
the product. Convenience, Seriousness, Ability, Transparency, and Equity/Equality are the
variable indicators used. Consumer satisfaction is the achievement of conformity between
what consumers/patients want and the services/products received. The variable indicators
used are product quality, price, service quality, clarity of information, speed, and friendliness.

RESULTS AND DISCUSSION

Most respondents were 52% females and 48% males. Female respondents came to the
hospital more for treatment and accompanying family or relatives. They also came to USG
and visited pediatricians for their children. Most respondents were around 20-29 years old,
47.8%, and the least were ≤ 30 or 24%. Respondents at the age of 20-29 are a productive age.
They may still be students and workers who need self-treatments or are in early pregnancy.
They require proper consultation with a doctor to maintain/improve health status.

The construct validity testing has all been met. From 4 variables, there are 20
indicators. The validity test results show that the factor loading value is> 0.50, meaning that
the indicators are suitable for representing the study's constructs.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Item</th>
<th>Outer Loading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Trust</td>
<td>BT1</td>
<td>0.865</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>BT2</td>
<td>0.716</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>BT3</td>
<td>0.813</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>BT4</td>
<td>0.519</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>BT5</td>
<td>0.72</td>
<td>Valid</td>
</tr>
<tr>
<td>Service Quality</td>
<td>KL1</td>
<td>0.542</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>KL2</td>
<td>0.644</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>KL3</td>
<td>0.825</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>KL4</td>
<td>0.837</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>KL5</td>
<td>0.505</td>
<td>Valid</td>
</tr>
</tbody>
</table>
### Table 1. Convergent Validity (cont)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Item</th>
<th>Outer Loading</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Satisfaction</td>
<td>KP1</td>
<td>0.64</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>KP2</td>
<td>0.514</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>KP3</td>
<td>0.722</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>KP4</td>
<td>0.564</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>KP5</td>
<td>0.812</td>
<td>Valid</td>
</tr>
<tr>
<td>Patient loyalty</td>
<td>LP1</td>
<td>0.812</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>LP2</td>
<td>0.947</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>LP3</td>
<td>0.847</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>LP4</td>
<td>0.622</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>LP5</td>
<td>0.795</td>
<td>Valid</td>
</tr>
</tbody>
</table>

*Source:* Primary data, processed in 2022

### Table 2. AVE, Cronbach's alpha, and Composite Validity

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Trust</td>
<td>0.809</td>
<td>0.897</td>
<td>0.513</td>
<td>Reliable</td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.743</td>
<td>0.644</td>
<td>0.893</td>
<td>Reliable</td>
</tr>
<tr>
<td>Patient Satisfaction</td>
<td>0.772</td>
<td>0.646</td>
<td>0.634</td>
<td>Reliable</td>
</tr>
<tr>
<td>Patient Loyalty</td>
<td>0.839</td>
<td>0.768</td>
<td>0.822</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

*Source:* Primary data, processed in 2022

The reliability test results show that the average variance extract (AVE) value is > 0.50, the composite reliability value and Cronbach alpha's > 0.70, where this value has met the rule of thumb, which is > 0.60. These results can be interpreted if respondents are consistent in answering questionnaire questions.

The data analysis that explains the effect of brand trust on patient loyalty through the mediation of patient satisfaction and the effect of service quality on patient loyalty through the mediation of patient satisfaction are shown in Picture 1.

*Source:* Primary data, processed in 2022
Inner Model Testing

Structural models in PLS were evaluated using $R^2$. The Adjusted R-square ($R^2$) value for the independent variable (brand trust, quality of service, and patient satisfaction) contributed to explaining the dependent variable (patient loyalty) by 83.30%, the remaining 16.70%, while the adjusted R-square ($R^2$) value for the independent variable (brand trust and service quality) contributed to explaining the dependent variable (patient satisfaction) of 71.30%, the remaining 28.70% was given by other variables that were not included in this study.

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The results showed that brand trust with patient satisfaction has a path coefficient of 0.850 with a $t$ value of 2.278. The calculated $t$ value was greater than the $t$ table at 125 respondents with an alpha of 5% of 1.648, meaning that brand trust had a positive and significant relationship with patient satisfaction. Service quality with patient satisfaction had a path coefficient value of 1.126 with a value of 3.126. The calculated $t$ value was greater than the $t$ table with an alpha of 5% of 1.648, meaning that service quality had a positive and significant relationship to patient satisfaction. Brand trust with patient loyalty had a path coefficient of 0.745 with a value of 5.735. The calculated $t$ value was more significant than the $t$ table with an alpha of 5% of 1.648, meaning that brand trust had a positive and significant relationship with patient loyalty.

Other research results showed that service quality with patient loyalty had a path coefficient value of 0.814 with a value of 3.844. The calculated $t$ value was more significant than the $t$ table at 125 respondents with an alpha of 5% of 1.648, meaning that service quality had a positive and significant relationship with patient loyalty. Other research results showed that patient satisfaction with patient loyalty had a path coefficient value of 0.613 with a value of 5.611. The calculated $t$ value was more significant than the $t$ table at 125 respondents with an alpha of 5% of 1.648, meaning that patient satisfaction had a positive and significant relationship with patient loyalty.

Further research on the effect of brand trust on patient loyalty through the mediation of patient satisfaction had a path coefficient of 0.897 with a value of 4.812. The calculated $t$ value was more significant than the $t$ table with an alpha of 5% of 1.648, meaning that brand trust had a positive and significant relationship to patient loyalty through the mediation of patient satisfaction. Research on the effect of service quality on patient loyalty through the mediation of patient satisfaction had a path coefficient value of 0.814 with a value of 2.216. The calculated $t$ value was more significant than the $t$ table at 125 respondents with an alpha of 5% of 1.648, meaning that service quality had a positive and significant relationship to patient loyalty through the mediation of patient satisfaction.
Table 3. Results Data Analysis

<table>
<thead>
<tr>
<th>Indirect effect</th>
<th>Original Sample (O)</th>
<th>T Statistics (O</th>
<th>STERR</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand trust =&gt; Patient Satisfaction</td>
<td>0,850</td>
<td>2,878</td>
<td>0,038</td>
<td></td>
</tr>
<tr>
<td>Service Quality =&gt; Patient Satisfaction</td>
<td>1,126</td>
<td>3,126</td>
<td>0,026</td>
<td></td>
</tr>
<tr>
<td>Brand Trust =&gt; Patient Loyalty</td>
<td>0,745</td>
<td>5,735</td>
<td>0,046</td>
<td></td>
</tr>
<tr>
<td>Service Quality =&gt; Patient Loyalty</td>
<td>0,814</td>
<td>3,844</td>
<td>0,040</td>
<td></td>
</tr>
<tr>
<td>Patient Satisfaction =&gt; Patient Loyalty</td>
<td>0,613</td>
<td>5,611</td>
<td>0,041</td>
<td></td>
</tr>
<tr>
<td>Brand trust =&gt; Patient Satisfaction =&gt; Patient Loyalty</td>
<td>0,897</td>
<td>4,812</td>
<td>0,042</td>
<td></td>
</tr>
<tr>
<td>Service Quality =&gt; Patient Loyalty</td>
<td>0,814</td>
<td>2,216</td>
<td>0,029</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary data, processed in 2022

The results showed that brand trust had a significant effect on patient satisfaction. Afrizal and Suhardi (2018) found that trust significantly affected patient satisfaction at the dental polyclinic of PT. Bakti Timah Hospital Pangkalpinang, with a sample of 136 patients. Indayani et al. (2022) discovered trust significantly affected patient satisfaction at Siti Khodijah Sidoarjo Hospital. These results confirm that brand trust applied at JIH Solo Hospital tends to increase patient satisfaction. The higher the patient’s trust, the higher the patient’s satisfaction with the JIH hospital.

Further research indicated that service quality affected patient satisfaction. Dewi et al. (2023) showed that service quality significantly affected patient satisfaction in Indonesian hospitals. Astuti & Busthomi (2023) also stated that service quality contributed to patient satisfaction, and service quality positively and significantly affected patient satisfaction at the Regional General Hospital (RSUD) at dr. Mohamad Saleh in Probolinggo City. Layli (2022) found an influence of the quality of health services (assurance, empathy, responsiveness, tangible, and reliability) on the satisfaction of inpatients in hospitals. According to Layli (2022), service improvement can be made by paying attention to the needs and desires of patients, improving facilities and infrastructure, guaranteeing a sense of security, comfort, and trust, and the promised services quickly, accurately, and surely to increase patient satisfaction. The quality of service applied at JIH Solo hospital can increase patient satisfaction, meaning that the more the quality of service increases, the more patient satisfaction will increase at JIH Solo.

Further research indicated that brand trust affected patient loyalty. Nisza (2020) showed that trust positively and significantly affected customer loyalty in the Halodoc App at the Ibnu Sina Padang Islamic Hospital. Similarily, Ruth et al. (2022) found a significant positive influence between brand trust and loyalty at Syafira Pekanbaru Hospital. According to Ruth et al. (2022), the higher the brand trust caused by social media marketing activities' massiveness, the more brand loyalty increases. Also, Yusup and Mulyandi (2023) proved that customer trust positively and significantly affected customer loyalty at X Hospital in Gading Serpong Tangerang. According to Yusup and Mulyandi (2023), customer trust and customer loyalty play an important role in hospital X because consumers will have loyalty to a product or institution if customer satisfaction and customer trust. Hence, brand trust at JIH Solo Hospital could increase patient loyalty. The more brand trust increases, the more patient satisfaction will increase at JIH Solo.
Other studies showed that service quality affected patient loyalty. Kurniawan et al. (2022) also discovered that service quality significantly and positively affected the loyalty of BPJS Health user patients at RSIA Bunda Sejahtera. Likewise, Pratiwi (2020) found that service quality (tangible, reliable, assurance, responsiveness, and empathy) affected patient loyalty to hospitals in the inpatient unit at the Pertiwi Special Maternal and Child Hospital in Makassar City. According to (Pratiwi, 2020), RSKD is more communicative and always interacts with patients because good service quality will create loyalty in patients. Therefore, good service quality at JIH Solo Hospital can increase patient loyalty. The more the quality of service increases, the more JIH Solo patient loyalty will increase.

Other investigations showed that patient satisfaction affected patient loyalty. Kantoni and Sijabat (2023) revealed that patient satisfaction positively and significantly affected Siloam Lippo Village Hospital's loyalty. Likewise, Dewi (2017) found that patient satisfaction significantly affected the loyalty of inpatients at Slamet Riyadi Solo General Hospital. Setiabudi et al. (2023) discovered that patient satisfaction significantly affected Rumah Sakin Indriati Boyolali's loyalty. Hence, patient satisfaction at JIH Solo Hospital could increase patient loyalty. The more patient satisfaction increases, the more JIH Solo patient loyalty will increase.

Further research on the effect of brand trust on patient loyalty through mediation of patient satisfaction showed significant positive results. The more brand trust increases, the more patient satisfaction and loyalty will increase at JIH Solo Hospital. The direct testing significantly influenced brand trust and patient loyalty at JIH Solo Hospital. The indirect testing between brand trust on patient satisfaction and patient satisfaction on patient loyalty was significant, so patient satisfaction was a partial mediator of the effect of brand trust on patient loyalty at JIH Solo Hospital.

Research on the effect of service quality on patient loyalty through mediation of patient satisfaction showed significant positive results. The increasing quality of service will increase patient satisfaction and loyalty at JIH Solo Hospital. The direct testing significantly influenced service quality and patient loyalty at JIH Solo Hospital. The indirect testing between service quality on patient satisfaction and patient satisfaction on patient loyalty was significant, so patient satisfaction became a partial mediator of the effect of service quality on patient loyalty at JIH Solo Hospital.

CONCLUSION

Based on the analysis and discussion, the brand trust had a positive and significant impact on patient satisfaction, meaning that the higher the brand trust, the greater the patient satisfaction. Brand trust also had a positive and significant impact on patient loyalty, meaning that the higher the brand trust, the better the patient loyalty. The results showed that brand trust had a positive and significant impact on patient loyalty by mediating patient satisfaction, meaning that patient satisfaction will drive higher brand trust, so patient loyalty will also be more significant.

The quality of service had a positive and significant effect on patient satisfaction, meaning that the better the quality of service, the greater the patient's satisfaction. The quality of service also had a positive and significant impact on patient loyalty, meaning that the better the quality of service, the higher the patient loyalty. The quality of service had a
positive and significant effect on patient loyalty by mediating patient satisfaction, meaning that patient satisfaction will encourage better service quality, so patient loyalty will also be more significant.

This study implies that it contributes to adding to the literature and empirical evidence that patient satisfaction can act as a mediator between brand trust and patient loyalty and service quality on patient loyalty. It must be able to increase patient satisfaction, not enough to improve brand trust and service quality to increase hospital patient loyalty.

The limitation of this study is that it only used Partial Least Square (PLS) to avoid data abnormalities. The authors suggested further research to conduct research using the same variables in other places, to re-test this research model, or to use other variables by bringing up variables that cause increased patient loyalty.

REFERENCES


